

Bonny Specker, Ph.D. South Dakota State University



SDSU INVESTIGATORS

Bonny Specker, PhD (SDSU PI)

Kevin Dalsted, MS

Nancy Fahrenwald, RN, PhD

Donna Hess, PhD

Diane Kayongo-Male, PhD

Andrew Stremmel, PhD

Matthew Vukovich, PhD

Ann Wilson, Ph.D.

Expertise

Pediatric & Nutritional Epidemiology

Environmental Monitoring

Community Nursing

Rural Sociology

Rural Sociology

Human Development

Exercise Physiology

Human Development



LOCAL ADVISORS & CONSULTANTS

Richard Adcock, MBA

Jeffrey Boyle, MD

Lawrence Fenton, MD

Haugen-Rogers, Jan

Julie Johnson, MD

Brad Randall, MD

Dennis Stevens, MD, MPH

Expertise

Children's Specialty Clinics

Perinatology

Pediatrics

Women's & Children's Services

Disabilities & Rehabilitation

Forensic Pathology & Coroner

Neonatology



CINCINNATI CHMC INVESTIGATORS

Expertise

Bruce Lanphear, MD, MPH (CHMC PI)

Robert Kahn, MD, MPH Heidi Kalkwarf, PhD, RD

Kim Yolton, PhD

Richard Hornung, PhD

Pediatric Environmental Epidemiology

Pediatric Epidemiology

Nutritional Epidemiology

Developmental Psychology

Environmental Epi & Biostatistics



CINCINNATI CHMC - TIER II

Expertise

Frank Biro, MD

Steve Chernausek, MD

Lisa Martin, PhD

Ardythe Morrow, PhD

Kieran Phelan, MD, MS

Doug Ris, PhD

Marsha Wills-Karp, PhD

Adolescent Medicine

Pediatric Endocrinology

Genetic Epidemiology

Pediatric Infectious Disease Epidemiology

Pediatric Injury Epidemiology

Pediatric Neuropsychology

Pediatric Allergy & Immunology



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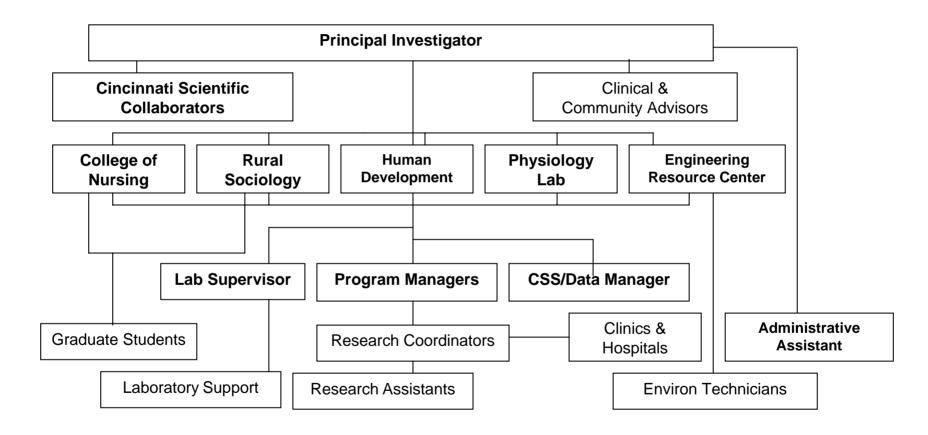
Grace LeMasters, PhD (*UC PI*) Kim Dietrich, PhD

Expertise

Environmental & Perinatal Epidemiology Environmental & Behavioral Epidemiology



BYPL Vanguard Center Organizational Structure





BYPL Vanguard Center Population Characteristics

| Characteristic | Brookings | Yellow Medicine | Pipestone | Lincoln | Total |
|----------------------------|-----------|--------------------|-----------|---------|--------|
| Population | 28,392 | 10,677 | 9,681 | 6,159 | 54,909 |
| Square Miles | 794 | 758 | 466 | 537 | 2,555 |
| Population Density (#/mi²) | 36 | 14 | 21 | 12 | 21 |
| Urban | | | | | |
| % Inside urbanized areas a | 0% | 0% | 0% | 0% | 0% |
| % Inside urban clusters b | 69% | 18% | 42% | 0% | 44% |
| Rural | | | | | |
| Farm ^c (%) | 6% | 18% | 17% | 23% | 12% |
| Non-Farm d (%) | 28% | 64% | 42% | 77% | 44% |

a urbanized area: > 50,000 people

b urban cluster: 2,500-49,999 people (Brookings largest city: est. 2004 population = 18,700)

c rural farm: operating, open country farms & ranches

d rural non-farm = places under 2,500 population & people living in open country (not engaged in farming or ranching)

Data from US Census, 2000

BYPL Vanguard Center Population Characteristics

| Characteristic | Brookings | Yellow Medicine | Pipestone | Lincoln | Total |
|------------------------------|-----------|--------------------|------------|------------|------------|
| Women Aged 18-39 Years | 6,029 | 1,291 | 1,214 | 707 | 9,241 |
| Median Age (y) | 27 | 40 | 40 | 43 | - |
| Households | 11,576 | 4,873 | 4,434 | 3,043 | 23,926 |
| Total Resident Births (2003) | 309 | 131 | 106 | 75 | 621 |
| Inside of County | 177 | 61 | 52 | 10 | 300 |
| Outside of County** | 132 | 70 | 54 | 65 | 321 |
| Non-Hispanic White | 96% | 95% | 96% | 98% | 96% |
| Median Household Income | \$35,438 | \$34,393 * | \$31,909 * | \$31,607 * | - |
| Persons Below Poverty (%) | 14% ^ | 10% ^ | 10% ^ | 10% ^ | 12% |

^{*} indicates lower than state average

Data from US Census, 2000



[^] indicates higher than state average

^{**} majority in Sioux Falls

Agriculture is the main economy



- Relatively stable population
- Strong sense of community
- Diverse communities:
 - Hutterites
 - Lakota Nation
 - Ethnic groups



BYPL Vanguard Center Population Characteristics

| | | Yellow | | | |
|-------------------------------|-----------|----------|------------------|---------|------------|
| <u>Characteristic</u> | Brookings | Medicine | Pipestone | Lincoln | Total |
| High School Graduates | 90% ^ | 82% * | 78% * | 80% * | 85% |
| Bachelor's Degree | 32% ^ | 14% * | 14% * | 14% * | 23% |
| # of Elementary Schools | 7 | 4 | 6 | 2 | 19 |
| # of Secondary & High Schools | 8 | 3 | 3 | 3 | 17 |
| # of Religious Institutions | 49 | 32 | 31 | 25 | 137 |
| Affiliated with a Church | 61% | 91% | 99% | 93% | 77% |

^{*} indicates lower than state average



[^] indicates higher than state average Data Source: Religious Congregations & Membership in the US & US Census, 2000

BYPL Vanguard Center Challenges

...where the women are strong, the men are good-looking, and the children are all above-average

